

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-9. (Canceled).

10. (New) A semiconductor device comprising:

- a device layer;
- an oxide film layer; and
- an on-chip coil antenna comprised of gold formed on said device layer;
- wherein said device layer and said oxide film layer are laminated in this order from the top to the bottom;
- said device layer comprises semiconductor circuits of a wireless IC;
- said on-chip coil antenna is configured to receive a microwave of 2.45 GHz;
- a thickness of said on-chip coil antenna is set to 2.6 μ m or thicker; and
- a width of said on-chip coil antenna is set from 2.6 μ m to 10 μ m.

11. (New) The semiconductor device according to claim 10, further comprising a resin layer formed between said on-chip coil antenna and said device layer, wherein electrode portions for connecting said on-chip coil antenna and said semiconductor circuits are formed in areas where said resin layer is formed in a tapered shape.

12. (New) The semiconductor device according to claim 10, further comprising a tape coated with an adhesive layer, wherein a side of said on-chip coil antenna of said semiconductor device is adhered to said adhesive layer.

13. (New) A paper sheet comprising:

the semiconductor device recited in claim 10; and

a protective member having a recess,

wherein the semiconductor device is included in said recess of said protective member.

14. (New) A staple of a stapler comprising the semiconductor device defined in claim 1 mounted on a surface or inside the staple of the stapler.

15. (New) A manufacture method for the semiconductor device according to claim 10, characterized by comprising a step of:

etching a wafer which includes the semiconductor device from a rear surface thereof to an oxide film inside the wafer to form separation grooves in the wafer.

16. (New) A semiconductor device comprising:

a device layer;

an oxide film layer; and

an on-chip coil antenna comprised of gold formed on said device layer;

wherein said device layer and said oxide film layer are laminated in this order from the top to the bottom;

 said device layer comprises semiconductor circuits of a wireless IC;

 said on-chip coil antenna is configured to receive a microwave of 2.45 GHz;

 a thickness of said on-chip coil antenna is set to 2.6 μ m or thicker; and

 a width of said on-chip coil antenna is set from 2.6 μ m to 10 μ m;

 wherein the semiconductor device further includes means for avoiding generation of eddy currents, said means comprising said oxide film layer being formed on a semiconductor substrate, said device layer being formed on said oxide film layer and said semiconductor substrate then being removed so that a lower surface of the oxide film layer is not adjoined to said semiconductor substrate to thereby avoid generation of eddy currents due to said semiconductor substrate.

17. (New) A semiconductor device comprising:

 a device layer;

 an oxide film layer; and

 an on-chip coil antenna comprised of gold formed on said device layer;

 wherein said device layer and said oxide film layer are laminated in this order from the top to the bottom;

 said device layer comprises semiconductor circuits of a wireless IC;

 said on-chip coil antenna is configured to receive a microwave of 2.45 GHz;

 a thickness of said on-chip coil antenna is set to 2.6 μ m or thicker; and

 a width of said on-chip coil antenna is set from 2.6 μ m to 10 μ m;

wherein said semiconductor device is formed by forming a lower surface of said oxide film layer on a semiconductor substrate, forming said device layer on an upper surface of said oxide film layer and then removing the semiconductor substrate from said lower surface of said oxide film layer.